

## [54] OPTHALMOLOGICAL SURGICAL INSTRUMENT

[76] Inventor: **Gerald P. Marinoff**, 8 Rockford Dr., West Nyack, N.Y. 10994[21] Appl. No.: **784,682**[22] Filed: **Apr. 5, 1977**[51] Int. Cl.<sup>2</sup> ..... **A61B 17/32**[52] U.S. Cl. .... **128/305; 128/745**

[58] Field of Search ..... 128/2 T, 305, 354, 2 B; 33/19 B, 21 B, 26, 174 D; 30/164.9, 293, 310; 83/821; 99/588; 3/13

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*Primary Examiner*—Dalton L. Truluck*Assistant Examiner*—J. L. Kruter*Attorney, Agent, or Firm*—Arthur Dresner[57] **ABSTRACT**

This invention teaches a hand-held surgical instrument for performing ophthalmological incisions in the form

of an arc of a circle, which are particularly suited for cataract surgery in order to provide access to the anterior chamber of a human eye to allow removal of a cataract lens. The instrument includes a fixation assembly having a pair of elongated arms fixed to each other at one end thereof, the other ends thereof being movable toward and away from each other. A pair of prongs are carried at the movable ends of the arms for insertion into the globe of the eye so that the surgeon may hold the eye in a fixed position. A linkage assembly is connected at one end to the fixation assembly and a knife assembly is connected to the other end of the linkage assembly for pivotal movement about a pivot point. The knife assembly includes a knife blade holder and a knife blade with a cutting edge at one end thereof carried in the holder. With one hand, the surgeon will hold the fixation assembly immobilizing the eye and supporting the instrument in proper position. With the other hand, the surgeon will cause the knife blade and holder to pivot through an arc of a circle and will apply sufficient pressure thereto so that the cutting edge will penetrate the eye and describe an incision in the form of an arc of a circle.

**19 Claims, 16 Drawing Figures**